



An Update on the Use of GMAO Data for TES Level 2 Data Processing and Verification

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Meteorological Products Working Group Meeting
September 11, 2006

G.B. Osterman - Aura Met Products Working Group Meeting - Sep 2006





TES Usage of GMAO Products

- Operational Use GEOS-4:
 - Receive both first and late look “mis” files at TES SIPS
 - Use GMAO temperature and water profiles as the initial guess for our L2 retrievals
 - Use skin temperature and surface pressure
 - Sep 2004 – Nov 2005: used GMAO late look products
 - Nov 2005: began using first look products





TES Usage of GMAO Products

- Operational Use GEOS-5:
 - Next major TES L2 reprocessing will use GEOS-5 data as an input
 - TES will continue to use instantaneous data products on pressure levels.
 - Data volume will be reduced by subsetting the data (done at Goddard DAAC)
- Timing of the start of TES V003 data processing is partially contingent on the GEOS-5 schedule (particularly the back processing).





TES Usage of GMAO Products

- Future:
 - GEOS-5 related updates
 - Finalize subscriptions and details of subsetting data
 - Obtain GEOS-5 test data for Sep 20-21, 2004
 - TES v003 data products will contain a tropospheric ozone column using GEOS-5 tropopause pressures
 - Use of NCEP temperature products to monitor and improve the TES temperature retrievals
 - Validation of TES v002 limb retrievals
 - Validation of TES v003 limb and nadir retrievals
 - Will be using GMAO GEOS-5 eta level products for future analysis (ordering extra files as needed).
 - No plans to change current subscription.



Example of use of GMAO data in TES TATM Retrieval

- Average difference for a full TES Global survey between GEOS-4 and TES retrieved TATM.
- Differences in troposphere of up to 2K
- Still working on improving TES temperature retrievals.

